10/054 435

Att #8

=> s guanine nucleotide exchange factor
L1 4246 GUANINE NUCLEOTIDE EXCHANGE FACTOR

=> s rac
L2 17564 RAC

=> s gef

L3 2034 GEF

=> s exchange factor
L4 6154 EXCHANGE FACTOR

=> s l1 or l3 or l4
L5 6942 L1 OR L3 OR L4

=> s l2 and l5
L6 754 L2 AND L5

=> s polypeptide? or peptide? or protein?
2 FILES SEARCHED...
L7 6849438 POLYPEPTIDE? OR PEPTIDE? OR PROTEIN?

=> s l2 and l5 and l7

L8 704 L2 AND L5 AND L7

=> dup rem l8

PROCESSING COMPLETED FOR L8
L9 290 DUP REM L8 (414 DUPLICATES REMOVED)

=> s l9 and py<1998
1 FILES SEARCHED...
3 FILES SEARCHED...
4 FILES SEARCHED...
L10 46 L9 AND PY<1998

=> d l10 ibib abs 1-46

L10 ANSWER 1 OF 46 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1998:32642 BIOSIS
DOCUMENT NUMBER: PREV199800032642
TITLE: Cbl-b, a member of the Sli-1/c-Cbl ***protein*** family, inhibits Vav-mediated c-Jun N-terminal kinase activation.
AUTHOR(S): Bustelo, Xose R. (1); Crespo, Piero; Lopez-Barahona, Monica; Gutkind, J. Silvio; Barbacid, Mariano
CORPORATE SOURCE: (1) Dep. Mol. Oncol., Bristol-Myers Squibb Pharm. Res. Inst., Princeton, NJ 08543 USA
SOURCE: Oncogene, (***Nov. 20, 1997***) Vol. 15, No. 21, pp. 2511-2520. ISSN: 0950-9232.
DOCUMENT TYPE: Article
LANGUAGE: English
AB We have used the yeast two-hybrid system to identify ***proteins*** that interact with Vav, a GDP/GTP ***exchange*** ***factor*** for the ***Rac*** -1 GTPase that plays an important role in cell signaling and oncogenic transformation. This experimental approach resulted in the isolation of Cbl-b, a signal transduction molecule highly related to the mammalian c-cbl proto-oncogene product and to the C. elegans Sli-1 ***protein*** , a negative regulator of the EGF-receptor-like Let23 ***protein*** . The interaction between Vav and Cbl-b requires the entire SH3-SH2-SH3 carboxy-terminal domain of Vav and a long stretch of proline-rich sequences present in the central region of Cbl-b. Stimulation of quiescent rodent fibroblasts with either epidermal or platelet-derived growth factors induces an increased affinity of Vav for Cbl-b and results in the subsequent formation of a Vav-dependent trimeric complex with the ligand-stimulated tyrosine kinase receptors. During this process, Vav, but not Cbl-b, becomes highly phosphorylated on tyrosine residues. Overexpression of Cbl-b inhibits the signal transduction pathway of Vav that leads to the stimulation of c-Jun N-terminal kinase. By contrast, expression of truncated Cbl-b ***proteins*** and of missense mutants analogous to those found in inactive Sli-1 ***proteins*** have no detectable effect on Vav activity. These results indicate that Vav and Cbl-b act coordinately in the first steps of tyrosine ***protein*** kinase receptor-mediated signaling and suggest that members of the Sli-1/Cbl family are also negative regulators of signal transduction in mammalian cells.

L10 ANSWER 2 OF 46 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1998:8424 BIOSIS
DOCUMENT NUMBER: PREV199800008424
TITLE: The ***guanine*** ***nucleotide*** ***exchange*** ***factor*** Tiam1 affects neuronal morphology: Opposing roles for the small GTPases ***Rac*** and Rho.
AUTHOR(S): van Leeuwen, Frank N.; Kain, Hendrie E. T.; Van Der Kammen, Rob A.; Michiels, Frits; Kranenburg, Onno W.; Collard, John G. (1)
CORPORATE SOURCE: (1) Netherlands Cancer Inst., Div. Cell Biol., Plesmanlaan 121, 1066 XC Amsterdam Netherlands
SOURCE: Journal of Cell Biology, (***Nov. 3, 1997***) Vol. 139, No. 3, pp. 797-807. ISSN: 0021-9525.
DOCUMENT TYPE: Article
LANGUAGE: English
AB The invasion-inducing T-lymphoma invasion and metastasis 1 (Tiam1) ***protein*** functions as a ***guanine*** ***nucleotide*** ***exchange*** ***factor*** (***GEF***) for the small GTPase Rac1. Differentiation-dependent expression of Tiam1 in the developing brain suggests a role for this ***GEF*** and its effector Rac1 in the control of neuronal morphology. Here we show that overexpression of Tiam1 induces cell spreading and affects neurite outgrowth in N1E-115 neuroblastoma cells. These effects are ***Rac*** -dependent and strongly promoted by laminin. Overexpression of Tiam1 recruits the alpha6beta1 integrin, a laminin receptor, to specific adhesive contacts at the cell periphery, which are different from focal contacts. Cells overexpressing Tiam1 no longer respond to lysophosphatidic acid-induced neurite retraction and cell rounding, processes mediated by Rho, suggesting that Tiam1-induced activation of ***Rac*** antagonizes Rho signaling. This inhibition can be overcome by coexpression of constitutively active RhoA, which may indicate that regulation occurs at the level of Rho or upstream. Conversely, neurite formation induced by Tiam1 or Rac1 is further promoted by inactivating Rho. These results demonstrate that ***Rac*** - and Rho-mediated pathways oppose each other during neurite formation and that a balance between these pathways determines neuronal morphology. Furthermore, our data underscore the potential role of Tiam1 as a specific regulator of ***Rac*** during neurite formation and illustrate the importance of reciprocal interactions between the cytoskeleton and the extracellular matrix during this process.

L10 ANSWER 3 OF 46 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1997:355832 BIOSIS
DOCUMENT NUMBER: PREV199799662235
TITLE: Identification of a novel, putative Rho-specific GDP/GTP ***exchange*** ***factor*** and a Rho-A-binding ***protein*** : Control of neuronal morphology.
AUTHOR(S): Gebbink, Martijn F. B. G.; Kranenburg, Onno; Poland, Mieke; Van Horck, Francis P. G.; Houssa, Brahim; Moolenaar, Wouter H. (1)
CORPORATE SOURCE: (1) Div. Cell. Biochem., Neth. Cancer Inst., Plesmanlaan 121, 1066 CX Amsterdam Netherlands
SOURCE: Journal of Cell Biology, (1997) Vol. 137, No. 7, pp. 1603-1613. ISSN: 0021-9525.
DOCUMENT TYPE: Article
LANGUAGE: English
AB The small GTP-binding ***protein*** Rho has been implicated in the control of neuronal morphology. In N1E-115 neuronal cells, the Rho-inactivating C3 toxin stimulates neurite outgrowth and prevents actomyosin-based neurite retraction and cell rounding induced by lysophosphatidic acid (LPA), sphingosine-1-phosphate, or thrombin acting

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AH#8

WEST Search History

DATE: Thursday, April 03, 2003

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ			
L8	l1 with L7	292	L8
L7	protein or polypeptide or peptide	359298	L7
L6	l1 with L5	35	L6
L5	l2 or L4	628	L5
L4	guanine nucleotide exchange	362	L4
L3	l1 with L2	23	L3
L2	gef!	369	L2
L1	rac!	4167	L1

END OF SEARCH HISTORY